

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated August 4, 2008 (hereinafter Office Action) have been considered. Claims 1-15, 17-31 remain pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

Applicants note that Claim 28 was added in the previous Office Action Response mailed April 14, 2008, however the Office Action did not list Claim 28 in the Office Action Summary page, nor was Claim 28 addressed in the Examiner's remarks. Applicants respectfully request entry and consideration of Claim 28. Further, Applicants note the addition of Claims 29-31, which depend from Claim 28. These claims are fully supported in the Application as filed, and no new matter has been added. Entry and consideration of Claims 29-31 is also respectfully requested.

1. Claims 22-24 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. 2006/0178137 to Loveland.

Applicants respectfully traverse the rejections, and submit that the claims as originally filed are not anticipated by Loveland. However, in order to facilitate prosecution of the application and in a *bona fide* attempt to advance the application to allowance, the Applicants present this response with amendment to clarify particular aspects of the claimed invention. Claim 22 has been amended to indicate that home devices are adapted to exchange media content via a first ad hoc service discovery protocol, and at least one mobile device is adapted to exchange media content via a second ad hoc service discovery protocol. At least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry. These amendments are fully supported in the Application as filed (e.g., FIG. 3; Specification, p. 17, lines 11-13 and p. 23, lines 13-17) and no new matter has been added.

Loveland fails to expressly or inherently describe translation in response to respective capabilities via respective first and second service ad hoc discovery protocols. Loveland describes a "gateway 130 [operating] as a bridge between cellular network 120 and a telephone network with multiple individually addressable telephone lines 170 connected to telephones 180." (Loveland, 0022). Connections "between cellular phone 140 and gateway 130 may

comprise a serial connection, a universal serial bus ('USB') connection, a Bluetooth connection, an 802.11x connection." (Loveland, 0024).

In the Office Action, paragraphs 0014 and 0022-0024 of Loveland were relied upon to show a service translation proxy adapted to translate media exchanged between home devices a mobile device in response to their respective capabilities via respective first and second service discovery protocols. As stated above, paragraphs 0022-0024 describe a gateway that bridges a cellular network and PSTN telephones. At 0014, Loveland only states

Routing may depend on a variety of factors, such as time of day, cost, the mobile phone receiving an inbound call, etc. Telephones may be any or a combination of analog telephones, integrated service digital network telephones, digital telephones, Internet protocol telephones, and the like. Due to differences in the mobile phone network and the telephone network, the gateway translates signals between the two networks. This translation allows for the generation of appropriate ring voltages and dial tones, as well as features like call waiting, message notifications, caller ID, caller waiting ID, call forwarding, phone forwarding, conference calls, transferring calls, and so forth, which may be available at the mobile phone network, but not at the telephone network at all, or not at the telephone network with the same interaction as would occur directly with the mobile phone network

Thus, at most Loveland describes the translation of signals between different types of telephones, such as "analog telephones, integrated service digital network telephones, digital telephones, Internet protocol telephones, and the like." However, this translation of signals neither expressly nor inherently teaches the use of discovery protocols. Telephones, including Internet protocol telephones, do not rely on service discovery because they are already configured to perform/use a single service, e.g., voice telephony. Thus, while not acquiescing that the gateway of Loveland performs any service discovery as set forth in Claim 22, Loveland is at least deficient in teaching service discovery between the gateway and telephones. As a result, Loveland fails to expressly or inherently describe translation via first and second service ad hoc discovery protocols.

Finally, Claim 22 now states that media is translated in response to capabilities determined via first and second ad hoc service discovery protocols, and that at least one of the ad hoc service discovery protocols utilize an Internet-located service registry.. Loveland is silent on the use any Internet-located service registry, for example only stating "telephones 180 can be any type of telephones, including ... Internet protocol telephones, session initiation

protocol ('SIP') telephones, etc. SIP telephones allow for various services, such as instant messaging ('IM'), short message service ('SMS'), multimedia message service ('MMS'), and the like." Thus Claim 22 is allowable over Loveland. Claims 23 and 24 depend from Claim 22, and recite additional features which further distinguish these claims from Loveland. Therefore Claims 22 and 24 are also allowable over Loveland.

2. Claim 28 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 7,212,543 to Arwald et al. (hereinafter Arwald).

Applicants respectfully traverse the rejections, and submit that the claims as originally filed are not anticipated by Arwald. However, in order to facilitate prosecution of the application and in a bona fide attempt to advance the application to allowance, the Applicants present this response with amendment to clarify particular aspects of the claimed invention. Claim 28 has been amended to indicate that an apparatus translates a service request from a first ad hoc service discovery protocol to the second ad hoc service discovery protocol and locates a service provider to provide a service requested via the second ad hoc service discovery protocol. At least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry. The service provided is translated into a format that is compatible with capability information associated with the service requestor as determined by the first and second ad hoc service discovery protocols.

Arwald fails to expressly or inherently describe translation in response to respective capabilities via the respective first and second service ad hoc discovery protocols. Arwald describes devices that "establish communication linkage and coordination between different communication networks, including global telephone communication networks, normal telephony communication networks, proprietary data networks, Internet, and electrical distribution networks, for example." (Arwald, col. 1, lines 31-36). In the Office Action, FIG. 2 and col. 12, line 11 to col.13, line 15 of Arwald was relied upon to teach Claims 28. However, here as elsewhere, Arwald is silent on service discovery, including ad hoc service discovery.

In cols. 12-13, Arwald describes central controller 35 identifying, in response to a call being initiated, "the type of communication that is being requested, and what the potential alternatives exist for establishing that connection to the other object." (Arwald, col. 12, lines

11-14). To do this, a subscriber profile is accessed from a database, the profile used for “for the purpose of establishing which services are available and usable for that particular called subscriber ... and also for determining whether or not any of the services to which the parties have access may create conflicts.” (Arwald, col. 12, lines 49-53). Thus, the available services are not “discovered” in this scenario because the available and usable services are already known and stored in the profile database. This type of lookup of a stored profile cannot be reasonably construed as ad hoc service discovery.

While Arwald may have other deficiencies related to Claim 28, such as failing to teach the use of a registry, Arwald at least fails to expressly or inherently describe the use of ad hoc service discovery as in the claim.

3. Claims 1 and 2 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,212,543 to Arwald et al. (hereinafter Arwald) in view of U.S. Patent No. 6,130,917 to Monroe. Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,212,543 to Arwald in view of U.S. Patent No. 6,130,917 to Monroe further in view of U.S. Publication No. 2003/0048855 to Klaghofer et al. (hereinafter Klaghofer). Claims 4-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,212,543 to Arwald in view of U.S. Patent No. 6,130,917 to Monroe further in view of U.S. Publication No. 2004/0120498 to Sylvain (hereinafter Sylvain).

Applicants respectfully traverse the rejections. However, in order to facilitate prosecution of the application and in a *bona fide* attempt to advance the application to allowance, the Applicants present this response with amendment to clarify particular aspects of the claimed invention. Amended independent Claim 1 recites, among other things, determining a protocol of an ad hoc service discovery request received from a client and translating the protocol of the ad hoc service discovery request into a service discovery protocol used by a service registry. As noted above regarding Claim 28, Arwald fails to teach the use of an ad hoc service discovery protocol or the use of an Internet-located service registry. Further, as applied to Claim 1, Arwald also fails to teach or suggest the translation from one service discovery protocol to another. As Arwald makes clear, e.g., at col. 12, lines 11-60, a single central

controller 35 examine profile data in a database to determine what type of connection is to be established. Here, as elsewhere in Arwald, there is no teaching or suggesting of an ad hoc service discovery, nor of any manner of translating between service discovery protocols. While Applicants do not acquiesce that Arwald's profile lookup can be construed as "service discovery" as such term is known in the art, Arwald nonetheless clearly fails to teach or suggest any translation of these lookups.

Monroe was not relied upon to cure these deficiencies of Arwald, nor does Monroe provide such a remedy. As Applicants have previously argued (e.g., Office Action Response mailed April 14, 2008) Monroe only teaches the use of point-to-point data transfer protocols (e.g., facsimile, file transfer, e-mail), and is silent on using any service discovery protocols. As a result, the combination of Arwald and Monroe fails to teach or suggest all of the limitations of Claim 1, and thus *prima facie* obviousness has not been established. Claim 2 depends from Claim 1 and is also rejected as obvious in view of the combination of Arwald and Monroe. Without acquiescing to the particular rejection of Claim 2, Claim 2 is allowable over the combination of references due to its dependency from Claim 1. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." M.P.E.P. §2143.03; citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

For the rejection of Claims 3-13, the combination of Arwald and Monroe were relied upon to teach the as teaching the substance of Claim 1 from which these claims depend. Neither Klaghofer nor Sylvain were relied upon as providing a remedy to the deficiencies of Arwald and Monroe as it pertains to independent Claim 1, nor do these additional references provide such a remedy. Thus, because none of the combinations of Arwald, Monroe, Klaghofer and/or Sylvain teach or suggest at least the recitations of Claim 1, a combination of these references fails to teach these recitations. While other requisites of establishing *prima facie* obviousness may also be absent, the Applicants respectfully submit that the cited combination of references at least fails to teach or suggest all of the claim limitations.

4. Claims 14-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2005/0160172 to Eytchison in view of U.S. Patent No. 6,310,889 to Parsons et al. (hereinafter Parsons). Claim 21 stands rejected under 35 U.S.C. §103(a) as

being unpatentable over U.S. Publication No. 2005/0160172 to Eytchison in view of U.S. Patent No. 6,310,889 to Parsons further in view of U.S. Publication No. 2004/0208164 to Keenan et al. (hereinafter Keenan).

Applicants respectfully traverse the rejections. However, in order to facilitate prosecution of the application and in a *bona fide* attempt to advance the application to allowance, the Applicants present this response with amendment to clarify particular aspects of the claimed invention. Amended independent Claims 14, 17, and 19 recite, among other things, translating a first ad hoc service discovery protocol of a service request into a second ad hoc service discovery protocol, and at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry. The combination of Eytchison and Keenan fails to teach this type of service discovery translation.

Eytchison describes a “UPnP rendezvous bridge [that] appropriately bridges a UPnP network of one or more devices with a rendezvous network of one or more devices.” (Eytchison, 0039). In contrast to the use of an Internet-located service registry, the bridge of Eytchison converts between two local networking protocols, e.g., “UPnP architecture enables a UPnP control point to discover UPnP network devices within a network,” (Eytchison, 0020); “rendezvous protocol allows two or more computers to be brought up on a local area network and without any manual configuration whatsoever.” (Eytchison, 0022). Thus Eytchison fails to teach or suggest translate between first and second ad hoc service discovery protocol, where at least one of which utilizes an Internet-located service registry.

Parsons was not relied upon to teach or suggest any aspect of service discovery, nor does Parsons cure the deficiencies of Eytchison noted above. Therefore the combination of Eytchison and Parsons at least fails to teach or suggest all of the claim limitations, and as a result this combination of references does not render Claims 14, 17, and 19 obvious. Claims 15, 18, and 20 depend respectively from Claims 14, 17, and 19, and are also allowable over this combination of references. Claim 21 depends from independent Claim 19, and the rejections did not rely on Keenan to remedy the deficiencies of Eytchison and Parsons as applied to Claim 19, nor does Keenan provide such a remedy. Therefore Claim 21 is allowable over the combination of Eytchison, Parsons, and Keenan.

5. Claims 25-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Arwald in view of Loveland.

Applicants respectfully traverse the rejections, but nonetheless present this response with amendment to clarify particular aspects of the claimed invention. Independent Claim 25, as amended, recites home devices adapted to exchange media content in a first format via a first ad hoc service discovery protocol and a mobile device adapted to exchange media content in a second format via a second ad hoc service discovery protocol. Further, at least one of the first and second ad hoc service discovery protocols utilize an Internet-located service registry. As noted above in sections 1 and 2, neither Arwald nor Loveland teach or suggest the use of two service discovery protocols, nor do such references teach or suggest the use of a service registry. Therefore, Claim 25 is allowable over the combination of Arwald and Loveland, and Claims 26 and 27 are allowable because of their dependency from Claim 25.

Authorization is given to charge Deposit Account No. 50-3581 (NOKM.094PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the Examiner is invited to contact the undersigned attorney to discuss any issues related to this case.

Respectfully submitted,

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